

*Suggestions: 1) Please consult Sequence Rules for valid format.*  
 2) *FYI: all S. applications filed on or after July 1, 1998, which do not claim a prior U.S. application, need to be in new Sequence Rules format.*

1636

PAGE: 1

RAW SEQUENCE LISTING  
 PATENT APPLICATION US/09/242,657

DATE: 02/09/2000  
 TIME: 09:53:45

INPUT SET: S34681.raw

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

1 GENERAL INFORMATION SEQUENCE LISTING

2 (1) General Information:

Does Not Comply  
 Corrected Diskette Needed

*use upper-case letters for headings*

3 (i) APPLICANTS: *↑ move up -*

4 (A) NAME: Peter Ruhdal Jensen

5 (B) STREET: Soegaardsvej 19

6 (C) CITY: Gentofte

7 (D) COUNTRY: Denmark

8 (E) POSTAL CODE (ZIP): DK-2820

9 (A) NAME: Karin Hammer

10 (B) STREET: Gaerdesmuttevej 20

11 (C) CITY: Hoersholm

12 (D) COUNTRY: Denmark

13 (E) POSTAL CODE (ZIP): DK-2970

14 (ii) TITLE OF INVENTION: Artificial promoter libraries for  
 15 selected organisms and promoters derived from such libraries

16 (iii) NUMBER OF SEQUENCES: 58

17 (iv) COMPUTER READABLE FORM:

18 (A) MEDIUM TYPE: Floppy disk

19 (B) COMPUTER: IBM PC compatible

20 (C) OPERATING SYSTEM: PC-DOS/MS-DOS

21 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

22 (EPO)

*(iv) CORRESPONDENCE ADDRESS section goes above*

*(v) COMPUTER READABLE FORM: section*

23 (iv) CORRESPONDENCE ADDRESS:

24 (A) ADDRESSEE: Stanislaus Aksman

25 Hunton & Williams

26 (B) STREET: 1900 K Street, NW

27 (C) CITY: Washington, DC (20006-1109)

28 (D) COUNTRY: USA

29 (E) TELEPHONE: (202) 955-1500

30 (F) FACSIMILE: (202) 778-2201

31 (vi) CURRENT APPLICATION DATA:

32 (A) APPLICATION NUMBER: To Be Assigned

33 (B) FILING DATE IN THE US PTO: February 19, 1999

34 (C) ATTORNEY DOCKET NO.: 55411.000002

35 (vii) PRIOR APPLICATION DATA:

36 (A) APPLICATION NUMBER: DK 886/96

*(ix) TELECOMMUNICATION INFORMATION:*

*(viii) ATTORNEY/AGENT INFORMATION:*

*add mandatory headings*

*these go under*

*goes under*

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:46

INPUT SET: S34681.raw

--> 46 (B) FILING DATE: 23-AUG-1996  
47 (A) (C) PCT APPLICATION NUMBER: PCT/DK97/00342  
48 (B) (D) FILING DATE: August 25, 1997  
49

## ERRORED SEQUENCES FOLLOW:

50 (2) INFORMATION FOR SEQ ID NO: 1:  
51  
52 (i) SEQUENCE CHARACTERISTICS:  
--> 53 (A) LENGTH: 100 base pairs  
54 (B) TYPE: nucleic acid  
55 (C) STRANDEDNESS: double  
56 (D) TOPOLOGY: linear  
57  
58 (ii) MOLECULE TYPE: DNA (genomic)  
59  
60 (iii) HYPOTHETICAL: YES  
61  
62 (iv) ANTI-SENSE: NO  
63  
64 (vi) ORIGINAL SOURCE:  
65 (A) ORGANISM: Lactococcus lactis  
66  
67 (ix) FEATURE:  
68 (A) NAME/KEY: promoter  
69 (B) LOCATION:26..82  
70 (C) IDENTIFICATION METHOD: experimental  
71 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL  
72 /standard\_name= "Artificial promoter library"  
73 /note= "A degenerated sequence specifying a  
74 mixture of  
75 artificial promoters covering a wide range of  
76 expression in  
77 small steps in L. lactis"  
78  
79 (ix) FEATURE:  
80 (A) NAME/KEY: misc\_feature  
81 (B) LOCATION:31..45  
82 (D) OTHER INFORMATION:/standard\_name= "Consensus  
83 sequence"  
84  
85 (ix) FEATURE:  
86 (A) NAME/KEY: misc\_feature  
87 (B) LOCATION:60..69  
88 (D) OTHER INFORMATION:/standard\_name= "Consensus  
89 sequence"  
90  
91 (ix) FEATURE:  
92 (A) NAME/KEY: misc\_feature

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

93 (B) LOCATION:74..82  
94 (D) OTHER INFORMATION:/standard\_name= "Consensus  
95 sequence"  
96  
97 (ix) FEATURE:  
98 (A) NAME/KEY: -35\_signal  
99 (B) LOCATION:40..45  
100 (D) OTHER INFORMATION:/standard\_name= "-35 box"  
101  
102 (ix) FEATURE:  
103 (A) NAME/KEY: -10\_signal  
104 (B) LOCATION:63..68  
105 (D) OTHER INFORMATION:/standard\_name= "Pribnow box"  
106  
107 (ix) FEATURE:  
108 (A) NAME/KEY: misc\_recomb  
109 (B) LOCATION:3..25  
110 (C) IDENTIFICATION METHOD: experimental  
111 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL  
112 /standard\_name= "Multiple cloning site"  
113 /label= MCS  
114 /note= "A sequence specifying recognition sites  
115 for the  
116 restriction endonucleases: NlaIV, BstYI, BamHI,  
117 AlwI, MboI,  
118 DpnI, AflIII, MseI, SspI, NsiI."  
119  
120 (ix) FEATURE:  
121 (A) NAME/KEY: misc\_recomb  
122 (B) LOCATION:74..98  
123 (C) IDENTIFICATION METHOD: experimental  
124 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL  
125 /standard\_name= "Multiple cloning site"  
126 /label= MCS  
127 /note= "A sequence specifying recognition sites  
128 for the  
129 restriction endonucleases: ScaI, RsaI, HpaI,  
130 HincII, MseI, SfcI,  
131 PstI, Fnu4HI, BbvI, PvuII, NspBII, AluI, EcoRI."  
132  
133  
134 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:  
135  
136 CGGGATCCTT AAGAATATTA TGCATNNNNN AGTTTATTCT TGACANNNNN NNNNNNNNT  
137 60  
138  
139 GGTATAATAN NANAGTACTG TTAAGTGCAG CTGAATTCGG  
140 100  
141  
142 (2) INFORMATION FOR SEQ ID NO: 2:  
143  
144 (i) SEQUENCE CHARACTERISTICS:

See Item 1  
on Env Summary  
Sheet

global  
format error

→ 60

→ 100

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
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INPUT SET: S34681.raw

```
--> 145      (A) LENGTH: 113 base pairs
146      (B) TYPE: nucleic acid
147      (C) STRANDEDNESS: double
148      (D) TOPOLOGY: linear
149
150      (ii) MOLECULE TYPE: DNA (genomic)
151
152      (iii) HYPOTHETICAL: YES
153
154      (iv) ANTI-SENSE: NO
155
156
157      (ix) FEATURE:
158          (A) NAME/KEY: promoter
159          (B) LOCATION:23..95
160          (D) OTHER INFORMATION:/standard_name= "Artificial
161              promoter library"
162              /note= "A degenerated sequence specifying a
163 mixture of
164             artificial temperature regulated promoters
165 covering a wide range
166             of expression in small steps in L. lactis"
167
168      (ix) FEATURE:
169          (A) NAME/KEY: misc_feature
170          (B) LOCATION:23..49
171          (D) OTHER INFORMATION:/standard_name= "Sequence
172 providing
173             temperature regulation to promoters"
174             /note= "This sequence comprising two inverted
175 repeats separated
176             by a short spacer provides temperature (heat
177 shock) regulation
178             to promoters in Gram-positive bacteria"
179
180      (ix) FEATURE:
181          (A) NAME/KEY: misc_feature
182          (B) LOCATION:50..60
183          (D) OTHER INFORMATION:/standard_name= "Consensus
184              sequence"
185
186      (ix) FEATURE:
187          (A) NAME/KEY: misc_feature
188          (B) LOCATION:75..84
189          (D) OTHER INFORMATION:/standard_name= "Consensus
190              sequence"
191
192      (ix) FEATURE:
193          (A) NAME/KEY: misc_feature
194          (B) LOCATION:89..95
195          (D) OTHER INFORMATION:/standard_name= "Consensus
196              sequence"
197
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RAW SEQUENCE LISTING  
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198 (ix) FEATURE:  
199 (A) NAME/KEY: -35\_signal  
200 (B) LOCATION:55..60  
201 (D) OTHER INFORMATION:/standard\_name= "-35 box"  
202  
203 (ix) FEATURE:  
204 (A) NAME/KEY: -10\_signal  
205 (B) LOCATION:78..83  
206 (D) OTHER INFORMATION:/standard\_name= "Pribnow box"  
207  
208 (ix) FEATURE:  
209 (A) NAME/KEY: misc\_recomb  
210 (B) LOCATION:3..22  
211 (D) OTHER INFORMATION:/standard\_name= "Multiple cloning  
212 site"  
213 /label= MCS  
214 /note= "A sequence specifying recognition sites  
215 for the  
216 restriction endonucleases: NlaIV, BstYI, BamHI,  
217 AlwI, MboI,  
218 DpnI, HindIII, AluI, MseI (2 sites), SspI,  
219 AseI."  
220  
221 (ix) FEATURE:  
222 (A) NAME/KEY: misc\_recomb  
223 (B) LOCATION:89..111  
224 (D) OTHER INFORMATION:/standard\_name= "Multiple cloning  
225 site"  
226 /label= MCS  
227 /note= "A sequence specifying recognition sites  
228 for the  
229 restriction endonucleases: ScaI, RsaI, SfcI,  
230 PstI, Fnu4HI, BbvI,  
231 PvuII, NspBII, AluI, XbaI, MaeI, EcoRI, ApoI."  
232  
233  
234 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:  
235  
236 CGGGATCCAA GCTTAATATT AATTAGCACT CNNNNNNNNN GAGTGCTAAT TTTTTTGACA  
237 60  
238  
239 NNNNNNNNNN NNNNTGGTAT AATANNANAG TACTGCAGCT GTCTAGAATT CGG  
240 113  
241

*same  
format  
error*

242 (2) INFORMATION FOR SEQ ID NO: 3:  
243  
244 (i) SEQUENCE CHARACTERISTICS:  
245 (A) LENGTH: 199 base pairs  
246 (B) TYPE: nucleic acid  
247 (C) STRANDEDNESS: double  
248 (D) TOPOLOGY: linear  
249

--&gt;

RAW SEQUENCE LISTING  
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250 (ii) MOLECULE TYPE: DNA (genomic)  
251  
252 (iii) HYPOTHETICAL: YES  
253  
254 (iv) ANTI-SENSE: NO  
255  
256 (vi) ORIGINAL SOURCE:  
257 (A) ORGANISM: Saccharomyces cerevisiae  
258  
259 (ix) FEATURE:  
260 (A) NAME/KEY: protein\_bind  
261 (B) LOCATION:10..16  
262 (D) OTHER INFORMATION:/function= "Activating promoters  
263 in  
264 S. cerevisiae"  
265 /bound\_moiety= "GCN4 protein"  
266 /standard\_name= "Upstream activating sequence"  
267 /label= UAS\_GCN4p  
268 /note= "A DNA sequence that specifies a binding  
269 site for the  
270 GCN4 protein, which activates the transcription  
271 of genes  
272 involved in aminoacid synthesis in S.  
273 cerevisiae."  
274  
275 (ix) FEATURE: *insert space*  
276 (A) NAME/KEY: TATA\_signal  
277 (B) LOCATION:67..72  
278 (D) OTHER INFORMATION:/standard\_name= "TATA box"  
279  
280 (ix) FEATURE:  
281 (A) NAME/KEY: misc\_signal  
282 (B) LOCATION:122..144  
283 (D) OTHER INFORMATION:/function= "Transcription  
284 initiation"  
285 /standard\_name= "TI box"  
286  
287 (ix) FEATURE:  
288 (A) NAME/KEY: protein\_bind  
289 (B) LOCATION:122..144  
290 (D) OTHER INFORMATION:/bound\_moiety= "Arginine  
291 repressor"  
292 /standard\_name= "arginine repressor binding  
293 site"  
294 /label= argR  
295  
296 (ix) FEATURE:  
297 (A) NAME/KEY: misc\_RNA  
298 (B) LOCATION:145..192  
299 (D) OTHER INFORMATION:/function= "Spacer"  
300 /standard\_name= "Part of native sequence for  
301 ARG8  
302 gene incl. first codon"

RAW SEQUENCE LISTING  
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303  
304 (ix) FEATURE:  
305 (A) NAME/KEY: misc\_recomb  
306 (B) LOCATION:3..8  
307 (D) OTHER INFORMATION:/standard\_name= "Recognition site  
308 for restriction endonuclease EcoRI"  
309 /label= EcoRI\_site  
310

311 (ix) FEATURE:  
312 (A) NAME/KEY: misc\_recomb  
313 (B) LOCATION:192..197  
314 (D) OTHER INFORMATION:/standard\_name= "Recognition site  
315 for restriction endonuclease BamHI"  
316 /label= BamHI\_site  
317

318 (ix) FEATURE:  
319 (A) NAME/KEY: promoter  
320 (B) LOCATION:10..192  
321 (D) OTHER INFORMATION:/standard\_name= "Artificial  
322 promoter library"  
323 /note= "A degenerated sequence specifying a  
324 mixture of  
325 artificial promoters covering a wide range of  
326 expression in  
327 small steps in S. cerevisiae"  
328  
329

330 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

331  
332 CAGAATTCGT GACTCANNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN  
333 60  
334  
335 NNNNNNNNNN NNNNNNTATA AANNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN  
336 120  
337  
338 NCTCTTAAGT GCAAGTGACT GCGAACATTT TTTTCGTTTG TTAGAATAAT TCAAGAATCG  
339 180  
340  
341 CTACCAATCA TGGATCCCG  
342 199  
343

*same  
err*

344 (2) INFORMATION FOR SEQ ID NO: 4:

345

346 (i) SEQUENCE CHARACTERISTICS:

347 (A) LENGTH: 45 base pairs

348 (B) TYPE: nucleic acid

349 (C) STRANDEDNESS: double

350 (D) TOPOLOGY: linear

351

352 (ii) MOLECULE TYPE: DNA (genomic)

353

354 (iii) HYPOTHETICAL: YES

-->

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

355  
356 (iv) ANTI-SENSE: NO  
357  
358 (vi) ORIGINAL SOURCE:  
359 (A) ORGANISM: Pseudomonas putida  
360  
361 (ix) FEATURE:  
362 (A) NAME/KEY: promoter  
363 (B) LOCATION:1..45  
364 (C) IDENTIFICATION METHOD: experimental  
365 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL  
366 /standard\_name= "Artificial promoter library"  
367 /note= "A degenerated sequence specifying a  
368 mixture of  
369 artificial promoterscovering a wide range of  
370 expression in small  
371 steps Pseudomonas putida"  
372  
373  
374 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:  
375  
376 NNNNNNNNTT GRNNNNNNNNN NNNNNNNNNN NTATRATNNN NNNNN  
377 45  
378

*same*

379 (2) INFORMATION FOR SEQ ID NO: 5:  
380  
381 (i) SEQUENCE CHARACTERISTICS:  
--> 382 (A) LENGTH: 60 base pairs  
383 (B) TYPE: nucleic acid  
384 (C) STRANDEDNESS: double  
385 (D) TOPOLOGY: linear  
386  
387 (ii) MOLECULE TYPE: DNA (genomic)  
388  
389 (iii) HYPOTHETICAL: YES  
390  
391 (iv) ANTI-SENSE: NO  
392  
393 (vi) ORIGINAL SOURCE:  
394 (A) ORGANISM: Lactococcus lactis  
395  
396 (ix) FEATURE:  
397 (A) NAME/KEY: promoter  
398 (B) LOCATION:4..60  
399 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
400 promoter"  
401 /label= Cp1  
402  
403  
404 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:  
405  
406 CATACCGGAG TTTATTCTTG ACAGTTCAC CTCGGGTTGA TATAATATCT CAGTACTGTT

*same*



RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
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INPUT SET: S34681.raw

407 60  
408  
409

---

--> 410 (2) INFORMATION FOR SEQ ID NO: 6:  
411  
412 (i) SEQUENCE CHARACTERISTICS:  
413 (A) LENGTH: 60 base pairs  
414 (B) TYPE: nucleic acid  
415 (C) STRANDEDNESS: double  
416 (D) TOPOLOGY: linear  
417  
418 (ii) MOLECULE TYPE: DNA (genomic)  
419  
420 (iii) HYPOTHETICAL: YES  
421  
422 (iv) ANTI-SENSE: NO  
423  
424 (vi) ORIGINAL SOURCE:  
425 (A) ORGANISM: Lactococcus lactis  
426  
427 (ix) FEATURE:  
428 (A) NAME/KEY: promoter  
429 (B) LOCATION: 4..60  
430 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
431 promoter"  
432 /label= Cp10  
433  
434  
435 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:  
436  
437 CATGGCTTAG TTTATTCTTG ACAGGGTAGT ATCACTGTGA TATAATAGGA CAGTACTGTT  
438 60  
439  
440

---

--> 441 (2) INFORMATION FOR SEQ ID NO: 7:  
442  
443 (i) SEQUENCE CHARACTERISTICS:  
444 (A) LENGTH: 59 base pairs  
445 (B) TYPE: nucleic acid  
446 (C) STRANDEDNESS: double  
447 (D) TOPOLOGY: linear  
448  
449 (ii) MOLECULE TYPE: DNA (genomic)  
450  
451 (iii) HYPOTHETICAL: YES  
452  
453 (iv) ANTI-SENSE: NO  
454  
455 (vi) ORIGINAL SOURCE:  
456 (A) ORGANISM: Lactococcus lactis  
457

*same*

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

458 (ix) FEATURE:  
459 (A) NAME/KEY: promoter  
460 (B) LOCATION:4..59  
461 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
462 promoter"  
463 /label= Cp11  
464  
465  
466 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:  
467  
468 CATAAGTGAG TTTATTCTTG ACCCGGACGC CCCCTTTGA TATAATAAGT AGTACTGTT  
469 59  
470

*same*

---

471 (2) INFORMATION FOR SEQ ID NO: 8:  
472  
473 (i) SEQUENCE CHARACTERISTICS:  
--> 474 (A) LENGTH: 60 base pairs  
475 (B) TYPE: nucleic acid  
476 (C) STRANDEDNESS: double  
477 (D) TOPOLOGY: linear  
478  
479 (ii) MOLECULE TYPE: DNA (genomic)  
480  
481 (iii) HYPOTHETICAL: YES  
482  
483 (iv) ANTI-SENSE: NO  
484  
485 (vi) ORIGINAL SOURCE:  
486 (A) ORGANISM: Lactococcus lactis  
487  
488 (ix) FEATURE:  
489 (A) NAME/KEY: promoter  
490 (B) LOCATION:4..60  
491 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
492 promoter"  
493 /label= Cp12  
494  
495  
496 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:  
497  
498 CATATACAAG TTTATTCTTG AACTAGTCG GCCAAATGA TATAATACCT GAGTACTGTT  
499 60  
500  
501

*same*

---

502 (2) INFORMATION FOR SEQ ID NO: 9:  
503  
504 (i) SEQUENCE CHARACTERISTICS:  
--> 505 (A) LENGTH: 60 base pairs  
506 (B) TYPE: nucleic acid  
507 (C) STRANDEDNESS: double  
508 (D) TOPOLOGY: linear

RAW SEQUENCE LISTING  
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509  
510 (ii) MOLECULE TYPE: DNA (genomic)  
511  
512 (iii) HYPOTHETICAL: YES  
513  
514 (iv) ANTI-SENSE: NO  
515  
516 (vi) ORIGINAL SOURCE:  
517 (A) ORGANISM: Lactococcus lactis  
518  
519 (ix) FEATURE:  
520 (A) NAME/KEY: promoter  
521 (B) LOCATION:4..60  
522 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
523 promoter"  
524 /label= Cp13  
525  
526  
527 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:  
528  
529 CATGCTTTAC TTTATTCTTG ACAAACCAC CAGCTTTTGG TATAATACGT GAGAACTGTT  
530 60  
531  
532

*Name*

533 (2) INFORMATION FOR SEQ ID NO: 10:  
534  
535 (i) SEQUENCE CHARACTERISTICS:  
--> 536 (A) LENGTH: 60 base pairs  
537 (B) TYPE: nucleic acid  
538 (C) STRANDEDNESS: double  
539 (D) TOPOLOGY: linear  
540  
541 (ii) MOLECULE TYPE: DNA (genomic)  
542  
543 (iii) HYPOTHETICAL: YES  
544  
545 (iv) ANTI-SENSE: NO  
546  
547 (vi) ORIGINAL SOURCE:  
548 (A) ORGANISM: Lactococcus lactis  
549  
550 (ix) FEATURE:  
551 (A) NAME/KEY: promoter  
552 (B) LOCATION:4..60  
553 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
554 promoter"  
555 /label= Cp14  
556  
557  
558 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:  
559  
560 CATGACGGAG TTTATTCTTG ACACAGGTAT GGACTTATGA TATAATAAAA CAGTACTGTT

*Name*

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
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INPUT SET: S34681.raw

561 60  
562  
563

---

564 (2) INFORMATION FOR SEQ ID NO: 11:  
565  
566 (i) SEQUENCE CHARACTERISTICS:  
--> 567 (A) LENGTH: 60 base pairs  
568 (B) TYPE: nucleic acid  
569 (C) STRANDEDNESS: double  
570 (D) TOPOLOGY: linear  
571  
572 (ii) MOLECULE TYPE: DNA (genomic)  
573  
574 (iii) HYPOTHETICAL: YES  
575  
576 (iv) ANTI-SENSE: NO  
577  
578 (vi) ORIGINAL SOURCE:  
579 (A) ORGANISM: Lactococcus lactis  
580  
581 (ix) FEATURE:  
582 (A) NAME/KEY: promoter  
583 (B) LOCATION: 4..60  
584 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
585 promoter"  
586 /label= Cp15  
587  
588  
589 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:  
590  
591 CATTACNTAG TTNATTCTTG ACAGAATTAC GATTCGCTGG TATAATATAT CAGTACTGTT  
592 60  
593  
594

---

595 (2) INFORMATION FOR SEQ ID NO: 12:  
596  
597 (i) SEQUENCE CHARACTERISTICS:  
--> 598 (A) LENGTH: 58 base pairs  
599 (B) TYPE: nucleic acid  
600 (C) STRANDEDNESS: double  
601 (D) TOPOLOGY: linear  
602  
603 (ii) MOLECULE TYPE: DNA (genomic)  
604  
605 (iii) HYPOTHETICAL: YES  
606  
607 (iv) ANTI-SENSE: NO  
608  
609 (vi) ORIGINAL SOURCE:  
610 (A) ORGANISM: Lactococcus lactis  
611

*same*

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:50

INPUT SET: S34681.raw

612 (ix) FEATURE:  
613 (A) NAME/KEY: promoter  
614 (B) LOCATION: 4..58  
615 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
616 promoter"  
617 /label= Cp16  
618  
619

620 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

621  
622 CATTGTGTAG TTTATTCTTG ACAGCTATGA GTCAATTGG TATAATAACA GTACTCAG  
623 58  
624

*same*

625 (2) INFORMATION FOR SEQ ID NO: 13:

626

627 (i) SEQUENCE CHARACTERISTICS:

--&gt;

628 (A) LENGTH: 59 base pairs

629 (B) TYPE: nucleic acid

630 (C) STRANDEDNESS: double

631 (D) TOPOLOGY: linear

632

633 (ii) MOLECULE TYPE: DNA (genomic)

634

635 (iii) HYPOTHETICAL: YES

636

637 (iv) ANTI-SENSE: NO

638

639 (vi) ORIGINAL SOURCE:

640 (A) ORGANISM: Lactococcus lactis

641

642 (ix) FEATURE:

643 (A) NAME/KEY: promoter

644 (B) LOCATION: 4..59

645 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
646 promoter"

647 /label= Cp17

648

649

650 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

651

652 CATTCTGGAG TTTATTCTTG ACCGCTCAGT ATGCAGTGGT ATAATAGTAC AGTACTGTT

653 59

654

*same*

655 (2) INFORMATION FOR SEQ ID NO: 14:

656

657 (i) SEQUENCE CHARACTERISTICS:

--&gt;

658 (A) LENGTH: 58 base pairs

659 (B) TYPE: nucleic acid

660 (C) STRANDEDNESS: double

661 (D) TOPOLOGY: linear

662

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
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INPUT SET: S34681.raw

663 (ii) MOLECULE TYPE: DNA (genomic)  
664  
665 (iii) HYPOTHETICAL: YES  
666  
667 (iv) ANTI-SENSE: NO  
668  
669 (vi) ORIGINAL SOURCE:  
670 (A) ORGANISM: Lactococcus lactis  
671  
672 (ix) FEATURE:  
673 (A) NAME/KEY: promoter  
674 (B) LOCATION:4..58  
675 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
676 promoter"  
677 /label= Cp18  
678  
679  
680 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:  
681  
682 CATTTTGCAG TTTATTCTTG ACATTGTGTG CTTCGGGTGT ATAATACTAA GTACTGTT  
683 58  
684

*same*

--> 685 (2) INFORMATION FOR SEQ ID NO: 15:  
686  
687 (i) SEQUENCE CHARACTERISTICS:  
688 (A) LENGTH: 58 base pairs  
689 (B) TYPE: nucleic acid  
690 (C) STRANDEDNESS: double  
691 (D) TOPOLOGY: linear  
692  
693 (ii) MOLECULE TYPE: DNA (genomic)  
694  
695 (iii) HYPOTHETICAL: YES  
696  
697 (iv) ANTI-SENSE: NO  
698  
699 (vi) ORIGINAL SOURCE:  
700 (A) ORGANISM: Lactococcus lactis  
701  
702 (ix) FEATURE:  
703 (A) NAME/KEY: promoter  
704 (B) LOCATION:4..58  
705 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
706 promoter"  
707 /label= Cp19  
708  
709  
710 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:  
711  
712 CATCGCTTAG TTTTCTTGA CAGGAGGGAT CCGGGTTGAT ATAATAGTTA GTACTGTT  
713 58  
714

*same*

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:50

INPUT SET: S34681.raw

---

715 (2) INFORMATION FOR SEQ ID NO: 16:  
716  
717 (i) SEQUENCE CHARACTERISTICS:  
--> 718 (A) LENGTH: 60 base pairs  
719 (B) TYPE: nucleic acid  
720 (C) STRANDEDNESS: double  
721 (D) TOPOLOGY: linear  
722  
723 (ii) MOLECULE TYPE: DNA (genomic)  
724  
725 (iii) HYPOTHETICAL: YES  
726  
727 (iv) ANTI-SENSE: NO  
728  
729 (vi) ORIGINAL SOURCE:  
730 (A) ORGANISM: Lactococcus lactis  
731  
732 (ix) FEATURE:  
733 (A) NAME/KEY: promoter  
734 (B) LOCATION:4..60  
735 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
736 promoter"  
737 /label= Cp2  
738  
739  
740 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:  
741  
742 CATTGCTAG TTTATTCTTG ACATGAAGCG TGCCTAATGG TATATTACTT GAGTACTGTT  
743 60  
744  
745

---

746 (2) INFORMATION FOR SEQ ID NO: 17:  
747  
748 (i) SEQUENCE CHARACTERISTICS:  
--> 749 (A) LENGTH: 60 base pairs  
750 (B) TYPE: nucleic acid  
751 (C) STRANDEDNESS: double  
752 (D) TOPOLOGY: linear  
753  
754 (ii) MOLECULE TYPE: DNA (genomic)  
755  
756 (iii) HYPOTHETICAL: YES  
757  
758 (iv) ANTI-SENSE: NO  
759  
760 (vi) ORIGINAL SOURCE:  
761 (A) ORGANISM: Lactococcus lactis  
762  
763 (ix) FEATURE:  
764 (A) NAME/KEY: promoter  
765 (B) LOCATION:4..60

---

*Name*

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

766 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
767 promoter"  
768 /label= Cp20  
769  
770  
771 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:  
772  
773 CATGGGTGAG TTTATTCTTG ACAGTGC GGC CNGGGGCTGA TATCATAGCA GAGTACTATT  
774 60  
775  
776

--> 777 (2) INFORMATION FOR SEQ ID NO: 18:  
778  
779 (i) SEQUENCE CHARACTERISTICS:  
780 (A) LENGTH: 59 base pairs  
781 (B) TYPE: nucleic acid  
782 (C) STRANDEDNESS: double  
783 (D) TOPOLOGY: linear  
784  
785 (ii) MOLECULE TYPE: DNA (genomic)  
786  
787 (iii) HYPOTHETICAL: YES  
788  
789 (iv) ANTI-SENSE: NO  
790  
791 (vi) ORIGINAL SOURCE:  
792 (A) ORGANISM: Lactococcus lactis  
793  
794 (ix) FEATURE:  
795 (A) NAME/KEY: promoter  
796 (B) LOCATION: 4..59  
797 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
798 promoter"  
799 /label= Cp21  
800  
801  
802 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:  
803  
804 CATTACCGAG TTTATTCTTG ACACCGTTTA TCGGGGTTGT ATAATACTAT AGTACTGTT  
805 59  
806

--> 807 (2) INFORMATION FOR SEQ ID NO: 19:  
808  
809 (i) SEQUENCE CHARACTERISTICS:  
810 (A) LENGTH: 60 base pairs  
811 (B) TYPE: nucleic acid  
812 (C) STRANDEDNESS: double  
813 (D) TOPOLOGY: linear  
814  
815 (ii) MOLECULE TYPE: DNA (genomic)  
816



RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:51

INPUT SET: S34681.raw

817 (iii) HYPOTHETICAL: YES  
818  
819 (iv) ANTI-SENSE: NO  
820  
821 (vi) ORIGINAL SOURCE:  
822 (A) ORGANISM: Lactococcus lactis  
823  
824 (ix) FEATURE:  
825 (A) NAME/KEY: promoter  
826 (B) LOCATION:4..60  
827 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
828 promoter"  
829 /label= Cp23  
830  
831  
832 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:  
833  
834 CATGTAGGAG TTTATTCTTG ACAGATTAGT TAGGGGGTGG TATAATATCT CAGTACTGTT  
835 60  
836  
837

---

--> 838 (2) INFORMATION FOR SEQ ID NO: 20:  
839  
840 (i) SEQUENCE CHARACTERISTICS:  
841 (A) LENGTH: 60 base pairs  
842 (B) TYPE: nucleic acid  
843 (C) STRANDEDNESS: double  
844 (D) TOPOLOGY: linear  
845  
846 (ii) MOLECULE TYPE: DNA (genomic)  
847  
848 (iii) HYPOTHETICAL: YES  
849  
850 (iv) ANTI-SENSE: NO  
851  
852 (vi) ORIGINAL SOURCE:  
853 (A) ORGANISM: Lactococcus lactis  
854  
855 (ix) FEATURE:  
856 (A) NAME/KEY: promoter  
857 (B) LOCATION:4..60  
858 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
859 promoter"  
860 /label= Cp24  
861  
862  
863 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:  
864  
865 CATGGGTAAG TTTATTCTTC AACTATCTG GGCCCGATGG TATAATAAGT GACTACTGTT  
866 60  
867  
868

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:51

INPUT SET: S34681.raw

---

869 (2) INFORMATION FOR SEQ ID NO: 21:  
870  
871 (i) SEQUENCE CHARACTERISTICS:  
--> 872 (A) LENGTH: 59 base pairs  
873 (B) TYPE: nucleic acid  
874 (C) STRANDEDNESS: double  
875 (D) TOPOLOGY: linear  
876  
877 (ii) MOLECULE TYPE: DNA (genomic)  
878  
879 (iii) HYPOTHETICAL: YES  
880  
881 (iv) ANTI-SENSE: NO  
882  
883 (vi) ORIGINAL SOURCE:  
884 (A) ORGANISM: Lactococcus lactis  
885  
886 (ix) FEATURE:  
887 (A) NAME/KEY: promoter  
888 (B) LOCATION:3..59  
889 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
890 promoter"  
891 /label= Cp25  
892  
893  
894 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:  
895  
896 CTTTGGCAGT TTATTCTTGA CATGTAGTGA GGGGGCTGGT ATAATCACAT AGTACTGTT  
897 59  
898

---

899 (2) INFORMATION FOR SEQ ID NO: 22:  
900  
901 (i) SEQUENCE CHARACTERISTICS:  
--> 902 (A) LENGTH: 60 base pairs  
903 (B) TYPE: nucleic acid  
904 (C) STRANDEDNESS: double  
905 (D) TOPOLOGY: linear  
906  
907 (ii) MOLECULE TYPE: DNA (genomic)  
908  
909 (iii) HYPOTHETICAL: YES  
910  
911 (iv) ANTI-SENSE: NO  
912  
913 (vi) ORIGINAL SOURCE:  
914 (A) ORGANISM: Lactococcus lactis  
915  
916 (ix) FEATURE:  
917 (A) NAME/KEY: promoter  
918 (B) LOCATION:4..60  
919 (D) OTHER INFORMATION:/standard\_name= "Constitutional

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

920 promoter"  
921 /label= Cp26  
922  
923  
924 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:  
925  
926 CATTCTACAG TTTATTCTTG ACATTGCACT GTCCCCCTGG TATAATAACT ATACATGCAT  
927 60  
928  
929

*same*

--> 930 (2) INFORMATION FOR SEQ ID NO: 23:  
931  
932 (i) SEQUENCE CHARACTERISTICS:  
933 (A) LENGTH: 60 base pairs  
934 (B) TYPE: nucleic acid  
935 (C) STRANDEDNESS: double  
936 (D) TOPOLOGY: linear  
937  
938 (ii) MOLECULE TYPE: DNA (genomic)  
939  
940 (iii) HYPOTHETICAL: YES  
941  
942 (iv) ANTI-SENSE: NO  
943  
944 (vi) ORIGINAL SOURCE:  
945 (A) ORGANISM: Lactococcus lactis  
946  
947 (ix) FEATURE:  
948 (A) NAME/KEY: promoter  
949 (B) LOCATION: 4..60  
950 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
951 promoter"  
952 /label= Cp28  
953  
954  
955 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:  
956  
957 CATGGGGCCG TTTATTCTTG ACAACGGCGA GCAGACCTGG TATAATAATA TAGTACTGTT  
958 60  
959  
960

*same*

--> 961 (2) INFORMATION FOR SEQ ID NO: 24:  
962  
963 (i) SEQUENCE CHARACTERISTICS:  
964 (A) LENGTH: 59 base pairs  
965 (B) TYPE: nucleic acid  
966 (C) STRANDEDNESS: double  
967 (D) TOPOLOGY: linear  
968  
969 (ii) MOLECULE TYPE: DNA (genomic)  
970

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:52

INPUT SET: S34681.raw

971 (iii) HYPOTHETICAL: YES  
972  
973 (iv) ANTI-SENSE: NO  
974  
975 (vi) ORIGINAL SOURCE:  
976 (A) ORGANISM: Lactococcus lactis  
977  
978 (ix) FEATURE:  
979 (A) NAME/KEY: promoter  
980 (B) LOCATION:4..59  
981 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
982 promoter"  
983 /label= Cp29  
984  
985  
986 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:  
987  
988 CATCGGTAAG TTATTCTTGA CATCTCAGGG GGGACGTGGT ATAATAACTG AGTACTGTT  
989 59  
990

*Same*

--> 991 (2) INFORMATION FOR SEQ ID NO: 25:  
992  
993 (i) SEQUENCE CHARACTERISTICS:  
994 (A) LENGTH: 60 base pairs  
995 (B) TYPE: nucleic acid  
996 (C) STRANDEDNESS: double  
997 (D) TOPOLOGY: linear  
998  
999 (ii) MOLECULE TYPE: DNA (genomic)  
1000  
1001 (iii) HYPOTHETICAL: YES  
1002  
1003 (iv) ANTI-SENSE: NO  
1004  
1005 (vi) ORIGINAL SOURCE:  
1006 (A) ORGANISM: Lactococcus lactis  
1007  
1008 (ix) FEATURE:  
1009 (A) NAME/KEY: promoter  
1010 (B) LOCATION:4..60  
1011 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1012 promoter"  
1013 /label= Cp3  
1014  
1015  
1016 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:  
1017  
1018 CATCCTGTAG TTTATTCTTG ACACACGTNN TTAGCTGTGG TATAATAGGA GAGTACTGTT  
1019 60  
1020  
1021

*Same*

1022 (2) INFORMATION FOR SEQ ID NO: 26:

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:52

INPUT SET: S34681.raw

1023  
1024 (i) SEQUENCE CHARACTERISTICS:  
--> 1025 (A) LENGTH: 60 base pairs  
1026 (B) TYPE: nucleic acid  
1027 (C) STRANDEDNESS: double  
1028 (D) TOPOLOGY: linear  
1029  
1030 (ii) MOLECULE TYPE: DNA (genomic)  
1031  
1032 (iii) HYPOTHETICAL: YES  
1033  
1034 (iv) ANTI-SENSE: NO  
1035  
1036 (vi) ORIGINAL SOURCE:  
1037 (A) ORGANISM: Lactococcus lactis  
1038  
1039 (ix) FEATURE:  
1040 (A) NAME/KEY: promoter  
1041 (B) LOCATION:4..60  
1042 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1043 promoter"  
1044 /label= Cp30  
1045  
1046  
1047 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:  
1048  
1049 CATGACAGAG TTTATTCTTG ACAGTATTGG GTTACTTTGG TATAATAGTT GAGTACTGTT  
1050 60  
1051  
1052

*Done*

---

1053 (2) INFORMATION FOR SEQ ID NO: 27:  
1054  
1055 (i) SEQUENCE CHARACTERISTICS:  
--> 1056 (A) LENGTH: 60 base pairs  
1057 (B) TYPE: nucleic acid  
1058 (C) STRANDEDNESS: double  
1059 (D) TOPOLOGY: linear  
1060  
1061 (ii) MOLECULE TYPE: DNA (genomic)  
1062  
1063 (iii) HYPOTHETICAL: YES  
1064  
1065 (iv) ANTI-SENSE: NO  
1066  
1067 (vi) ORIGINAL SOURCE:  
1068 (A) ORGANISM: Lactococcus lactis  
1069  
1070 (ix) FEATURE:  
1071 (A) NAME/KEY: promoter  
1072 (B) LOCATION:4..60  
1073 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1074 promoter"

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:53

INPUT SET: S34681.raw

1075 /label= Cp32

1076

1077

1078 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

1079

1080 CATACGGGAG TTTATTCTTG ACATATTGCC GGTGTGTTGG TATAATAACT TAGTACTGTT

1081 60

1082

1083

*same*

1084 (2) INFORMATION FOR SEQ ID NO: 28:

1085

(i) SEQUENCE CHARACTERISTICS:

--&gt;

1087 (A) LENGTH: 60 base pairs

1088 (B) TYPE: nucleic acid

1089 (C) STRANDEDNESS: double

1090 (D) TOPOLOGY: linear

1091

1092 (ii) MOLECULE TYPE: DNA (genomic)

1093

1094 (iii) HYPOTHETICAL: YES

1095

1096 (iv) ANTI-SENSE: NO

1097

1098 (vi) ORIGINAL SOURCE:

1099 (A) ORGANISM: Lactococcus lactis

1100

1101 (ix) FEATURE:

1102 (A) NAME/KEY: promoter

1103 (B) LOCATION: 4..60

1104 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
1105 promoter"

1106 /label= Cp33

1107

1108

1109 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

1110

1111 CATGTTGGAG TTTATTCTTG ACATACAATT ACTGCAGTGA TATAATAGGT GAGTACTGTT

1112 60

1113

1114

*same*

1115 (2) INFORMATION FOR SEQ ID NO: 29:

1116

(i) SEQUENCE CHARACTERISTICS:

--&gt;

1118 (A) LENGTH: 60 base pairs

1119 (B) TYPE: nucleic acid

1120 (C) STRANDEDNESS: double

1121 (D) TOPOLOGY: linear

1122

1123 (ii) MOLECULE TYPE: DNA (genomic)

1124

1125 (iii) HYPOTHETICAL: YES

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:53

INPUT SET: S34681.raw

1126  
1127 (iv) ANTI-SENSE: NO  
1128  
1129 (vi) ORIGINAL SOURCE:  
1130 (A) ORGANISM: Lactococcus lactis  
1131  
1132 (ix) FEATURE:  
1133 (A) NAME/KEY: promoter  
1134 (B) LOCATION:4..60  
1135 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1136 promoter"  
1137 /label= Cp34  
1138  
1139  
1140 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:  
1141  
1142 CATCGCGAAG TTTATTCTTC ACACACCGCA GAACTTGTGG TATAATACAA CAGTACTGTT  
1143 60  
1144  
1145

*same*

---

1146 (2) INFORMATION FOR SEQ ID NO: 30:  
1147  
1148 (i) SEQUENCE CHARACTERISTICS:  
--> 1149 (A) LENGTH: 59 base pairs  
1150 (B) TYPE: nucleic acid  
1151 (C) STRANDEDNESS: double  
1152 (D) TOPOLOGY: linear  
1153  
1154 (ii) MOLECULE TYPE: DNA (genomic)  
1155  
1156 (iii) HYPOTHETICAL: YES  
1157  
1158 (iv) ANTI-SENSE: NO  
1159  
1160 (vi) ORIGINAL SOURCE:  
1161 (A) ORGANISM: Lactococcus lactis  
1162  
1163 (ix) FEATURE:  
1164 (A) NAME/KEY: promoter  
1165 (B) LOCATION:4..59  
1166 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1167 promoter"  
1168 /label= Cp37  
1169  
1170  
1171 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:  
1172  
1173 CATCATTAAG TTTATTCTTC ACATTGGCCG GAATTGTTGT ATAATACCTT AGTACTGTT  
1174 59  
1175

*same*

---

1176 (2) INFORMATION FOR SEQ ID NO: 31:

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:53

INPUT SET: S34681.raw

1177  
1178 (i) SEQUENCE CHARACTERISTICS:  
--> 1179 (A) LENGTH: 60 base pairs  
1180 (B) TYPE: nucleic acid  
1181 (C) STRANDEDNESS: double  
1182 (D) TOPOLOGY: linear  
1183  
1184 (ii) MOLECULE TYPE: DNA (genomic)  
1185  
1186 (iii) HYPOTHETICAL: YES  
1187  
1188 (iv) ANTI-SENSE: NO  
1189  
1190 (vi) ORIGINAL SOURCE:  
1191 (A) ORGANISM: Lactococcus lactis  
1192  
1193 (ix) FEATURE:  
1194 (A) NAME/KEY: promoter  
1195 (B) LOCATION:4..60  
1196 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1197 promoter"  
1198 /label= Cp38  
1199  
1200  
1201 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:  
1202  
1203 CATAGAGAAG TTTATTCTTG ACAGCTAACT TGGCCTTTGA TATAATACAT GAGTACTGTT  
1204 60  
1205  
1206

*Same*

---

1207 (2) INFORMATION FOR SEQ ID NO: 32:  
1208  
1209 (i) SEQUENCE CHARACTERISTICS:  
--> 1210 (A) LENGTH: 60 base pairs  
1211 (B) TYPE: nucleic acid  
1212 (C) STRANDEDNESS: double  
1213 (D) TOPOLOGY: linear  
1214  
1215 (ii) MOLECULE TYPE: DNA (genomic)  
1216  
1217 (iii) HYPOTHETICAL: YES  
1218  
1219 (iv) ANTI-SENSE: NO  
1220  
1221 (vi) ORIGINAL SOURCE:  
1222 (A) ORGANISM: Lactococcus lactis  
1223  
1224 (ix) FEATURE:  
1225 (A) NAME/KEY: promoter  
1226 (B) LOCATION:4..60  
1227 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1228 promoter"



RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
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INPUT SET: S34681.raw

1229 /label= Cp39

1230

1231

1232 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

1233

1234 CATTGCGAAG TTTATTCTTG ACAGTACGTT TTTACCATGA TATAATAGTA TAGTACTGTT

1235 60

1236

1237

*Same*

1238 (2) INFORMATION FOR SEQ ID NO: 33:

1239

(i) SEQUENCE CHARACTERISTICS:

--&gt; 1241 (A) LENGTH: 60 base pairs

1242 (B) TYPE: nucleic acid

1243 (C) STRANDEDNESS: double

1244 (D) TOPOLOGY: linear

1245

1246 (ii) MOLECULE TYPE: DNA (genomic)

1247

1248 (iii) HYPOTHETICAL: YES

1249

1250 (iv) ANTI-SENSE: NO

1251

1252 (vi) ORIGINAL SOURCE:

1253 (A) ORGANISM: Lactococcus lactis

1254

1255 (ix) FEATURE:

1256 (A) NAME/KEY: promoter

1257 (B) LOCATION: 4..60

1258 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
1259 promoter"

1260 /label= Cp4

1261

1262

1263 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

1264

1265 GATGTTTTAG TTTATTCTTG ACACCGTATC GTGCGCGTGA TATAATCGGG ATCCTTAAGA

1266 60

1267

1268

*Same*

1269 (2) INFORMATION FOR SEQ ID NO: 34:

1270

(i) SEQUENCE CHARACTERISTICS:

--&gt; 1272 (A) LENGTH: 59 base pairs

1273 (B) TYPE: nucleic acid

1274 (C) STRANDEDNESS: double

1275 (D) TOPOLOGY: linear

1276

1277 (ii) MOLECULE TYPE: DNA (genomic)

1278

1279 (iii) HYPOTHETICAL: YES

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
TIME: 09:53:54

INPUT SET: S34681.raw

1280  
1281 (iv) ANTI-SENSE: NO  
1282  
1283 (vi) ORIGINAL SOURCE:  
1284 (A) ORGANISM: Lactococcus lactis  
1285  
1286 (ix) FEATURE:  
1287 (A) NAME/KEY: promoter  
1288 (B) LOCATION: 4  
1289 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
1290 promoter"  
1291 /label= Cp40  
1292  
1293  
1294 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:  
1295  
1296 CATAGAACAG TTTATTCTTG ACATTGAATA AGAAGGCTGA TATAATAGCC AGTACTGTT  
1297 59  
1298

*same*

--> 1299 (2) INFORMATION FOR SEQ ID NO: 35:  
1300  
1301 (i) SEQUENCE CHARACTERISTICS:  
1302 (A) LENGTH: 60 base pairs  
1303 (B) TYPE: nucleic acid  
1304 (C) STRANDEDNESS: double  
1305 (D) TOPOLOGY: linear  
1306  
1307 (ii) MOLECULE TYPE: DNA (genomic)  
1308  
1309 (iii) HYPOTHETICAL: YES  
1310  
1311 (iv) ANTI-SENSE: NO  
1312  
1313 (vi) ORIGINAL SOURCE:  
1314 (A) ORGANISM: Lactococcus lactis  
1315  
1316 (ix) FEATURE:  
1317 (A) NAME/KEY: promoter  
1318 (B) LOCATION: 4..60  
1319 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
1320 promoter"  
1321 /label= Cp41  
1322  
1323  
1324 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:  
1325  
1326 CATCCGCAAG TTTATTCTTG ACAGCTGAAT GTAGACGTGG TATAATAGTT AAGTACTGTT  
1327 60  
1328  
1329

*same*

---

1330 (2) INFORMATION FOR SEQ ID NO: 36:

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

1331  
1332 (i) SEQUENCE CHARACTERISTICS:  
--> 1333 (A) LENGTH: 60 base pairs  
1334 (B) TYPE: nucleic acid  
1335 (C) STRANDEDNESS: double  
1336 (D) TOPOLOGY: linear  
1337  
1338 (ii) MOLECULE TYPE: DNA (genomic)  
1339  
1340 (iii) HYPOTHETICAL: YES  
1341  
1342 (iv) ANTI-SENSE: NO  
1343  
1344 (vi) ORIGINAL SOURCE:  
1345 (A) ORGANISM: Lactococcus lactis  
1346  
1347 (ix) FEATURE:  
1348 (A) NAME/KEY: promoter  
1349 (B) LOCATION:4..60  
1350 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1351 promoter"  
1352 /label= Cp42  
1353  
1354  
1355 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:  
1356  
1357 CATTCGTAAG TTTATTCTTG ACACCTGAGA TGAGGCGTGA TATAATAAAT AAGTACTGTT  
1358 60  
1359  
1360

*same*

---

1361 (2) INFORMATION FOR SEQ ID NO: 37:  
1362  
1363 (i) SEQUENCE CHARACTERISTICS:  
--> 1364 (A) LENGTH: 59 base pairs  
1365 (B) TYPE: nucleic acid  
1366 (C) STRANDEDNESS: double  
1367 (D) TOPOLOGY: linear  
1368  
1369 (ii) MOLECULE TYPE: DNA (genomic)  
1370  
1371 (iii) HYPOTHETICAL: YES  
1372  
1373 (iv) ANTI-SENSE: NO  
1374  
1375 (vi) ORIGINAL SOURCE:  
1376 (A) ORGANISM: Lactococcus lactis  
1377  
1378 (ix) FEATURE:  
1379 (A) NAME/KEY: promoter  
1380 (B) LOCATION:4..59  
1381 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1382 promoter"

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INPUT SET: S34681.raw

/label= Cp44

1383  
1384  
1385  
1386  
1387  
1388  
1389  
1390

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

CATCGGGTAG TTTATTCTTG ACAATTAAGT AGAGCCTGAT ATAATAGTTC AGTACTGTT  
59*same*

(2) INFORMATION FOR SEQ ID NO: 38:

1391  
1392  
1393  
1394  
1395  
1396  
1397  
1398

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 59 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

--&gt;

1399  
1400  
1401  
1402  
1403  
1404

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: YES

(iv) ANTI-SENSE: NO

1405  
1406  
1407

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Lactococcus lactis

1408  
1409  
1410  
1411  
1412  
1413  
1414  
1415

(ix) FEATURE:

- (A) NAME/KEY: promoter  
(B) LOCATION: 4..59  
(C) IDENTIFICATION METHOD: experimental  
(D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
/standard\_name= "Constitutional promoter"  
/label= Cp5

1416  
1417  
1418  
1419  
1420  
1421

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

CATGGGGGAG TTTATTCTTG ACATCATCTT CGTAGCCTGG TATACTACAT GAGTATGTT  
59*same*

(2) INFORMATION FOR SEQ ID NO: 39:

1422  
1423  
1424  
1425  
1426  
1427  
1428  
1429  
1430  
1431  
1432  
1433

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 60 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

--&gt;

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: YES

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INPUT SET: S34681.raw

1434 (iv) ANTI-SENSE: NO  
1435  
1436 (vi) ORIGINAL SOURCE:  
1437 (A) ORGANISM: Lactococcus lactis  
1438  
1439 (ix) FEATURE:  
1440 (A) NAME/KEY: promoter  
1441 (B) LOCATION:4..60  
1442 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1443 promoter"  
1444 /label= Cp6  
1445  
1446  
1447 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:  
1448  
1449 CATGTGGGAG TTTATTCTTG ACACAGATAT TTCCGGATGA TATAATAACT GAGTACTGTT  
1450 60  
1451  
1452

*same*

---

1453 (2) INFORMATION FOR SEQ ID NO: 40:  
1454  
1455 (i) SEQUENCE CHARACTERISTICS:  
--> 1456 (A) LENGTH: 60 base pairs  
1457 (B) TYPE: nucleic acid  
1458 (C) STRANDEDNESS: double  
1459 (D) TOPOLOGY: linear  
1460  
1461 (ii) MOLECULE TYPE: DNA (genomic)  
1462  
1463 (iii) HYPOTHETICAL: YES  
1464  
1465 (iv) ANTI-SENSE: NO  
1466 (vi) ORIGINAL SOURCE:  
1467 (A) ORGANISM: Lactococcus lactis  
1468  
1469 (ix) FEATURE:  
1470 (A) NAME/KEY: promoter  
1471 (B) LOCATION:4..60  
1472 (D) OTHER INFORMATION:/standard\_name= "Constitutional  
1473 promoter"  
1474 /label= Cp7  
1475  
1476  
1477 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:  
1478  
1479 TATGCGGTAG TTTATTCTTG ACATGACGAG ACAGGTGTGG TATAATGGGT CTAGATTAGG  
1480 60  
1481  
1482

*same*

---

1483 (2) INFORMATION FOR SEQ ID NO: 41:  
1484

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
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INPUT SET: S34681.raw

--> 1485 (i) SEQUENCE CHARACTERISTICS:  
1486 (A) LENGTH: 60 base pairs  
1487 (B) TYPE: nucleic acid  
1488 (C) STRANDEDNESS: double  
1489 (D) TOPOLOGY: linear  
1490  
1491 (ii) MOLECULE TYPE: DNA (genomic)  
1492  
1493 (iii) HYPOTHETICAL: YES  
1494  
1495 (iv) ANTI-SENSE: NO  
1496  
1497 (vi) ORIGINAL SOURCE:  
1498 (A) ORGANISM: Lactococcus lactis  
1499  
1500 (ix) FEATURE:  
1501 (A) NAME/KEY: promoter  
1502 (B) LOCATION: 4..60  
1503 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
1504 promoter"  
1505 /label= Cp8  
1506  
1507  
1508 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:  
1509  
1510 CATTCTTTAG TTTATTCTTG ACAAACGTAT TGAGGACTGA TATAATAGGT GAGTACTGTT  
1511 60  
1512  
1513

---

1514 (2) INFORMATION FOR SEQ ID NO: 42:  
1515  
1516 (i) SEQUENCE CHARACTERISTICS:  
--> 1517 (A) LENGTH: 60 base pairs  
1518 (B) TYPE: nucleic acid  
1519 (C) STRANDEDNESS: double  
1520 (D) TOPOLOGY: linear  
1521  
1522 (ii) MOLECULE TYPE: DNA (genomic)  
1523  
1524 (iii) HYPOTHETICAL: YES  
1525  
1526 (iv) ANTI-SENSE: NO  
1527  
1528 (vi) ORIGINAL SOURCE:  
1529 (A) ORGANISM: Lactococcus lactis  
1530  
1531 (ix) FEATURE:  
1532 (A) NAME/KEY: promoter  
1533 (B) LOCATION: 4..60  
1534 (D) OTHER INFORMATION: /standard\_name= "Constitutional  
1535 promoter"  
1536 /label= Cp9

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INPUT SET: S34681.raw

1537  
1538  
1539  
1540  
1541  
1542  
1543  
1544

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

CATAGTCTAG TTTATTCTTG ACACGCGGTC CATTGGCTGG TATAATAATT TAGTACTGTT  
60*same*

(2) INFORMATION FOR SEQ ID NO: 43:

1545  
1546  
1547  
--> 1548  
1549  
1550  
1551  
1552

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

1553  
1554  
1555  
1556  
1557  
1558

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: YES

(iv) ANTI-SENSE: NO

1559  
1560  
1561

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Saccharomyces cerevisiae

1562  
1563  
1564  
1565  
1566  
1567  
1568

(ix) FEATURE:

- (A) NAME/KEY: promoter
- (B) LOCATION: 8..177
- (C) IDENTIFICATION METHOD: experimental
- (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
/standard\_name= "Yeast promoter"  
/label= Yp102

1569  
1570  
1571

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

1572  
1573  
1574  
1575  
1576  
1577  
1578  
1579  
1580  
1581GAATTCGTGA CTCAAACGGG TGGTCGACGG GTGGTTCCAA TTAATTGGCG TCCCTCTTAT  
60AAAGGCGAGG GTACGTGCGA CAATTGGTAG AGCGAGCGGG GCTCTTAAGT GCAAGTGACT  
120GCGAACATTT TTTTCGTTTG TTAGAATAAT TCAAGAATCG CTACCAATCA TGGATCC  
177*same*

(2) INFORMATION FOR SEQ ID NO: 44:

1582  
1583  
1584  
--> 1585  
1586  
1587

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 182 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

1588 (D) TOPOLOGY: linear  
1589  
1590 (ii) MOLECULE TYPE: DNA (genomic)  
1591  
1592 (iii) HYPOTHETICAL: YES  
1593  
1594 (iv) ANTI-SENSE: NO  
1595  
1596 (vi) ORIGINAL SOURCE:  
1597 (A) ORGANISM: Saccharomyces cerevisiae  
1598  
1599 (ix) FEATURE:  
1600 (A) NAME/KEY: promoter  
1601 (B) LOCATION: 8..181  
1602 (C) IDENTIFICATION METHOD: experimental  
1603 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1604 /standard\_name= "Yeast promoter"  
1605 /label= Yp112  
1606  
1607  
1608 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:  
1609  
1610 GAATTCGTGA CTCACGGCAT CTGATGGTTG ACCATAGTCA GGAACATTGT GCTGGAGTTC  
1611 60  
1612  
1613 CTTGAGGAAT GAGTTATAAA ATGGGAGGTT GCGGCTAATG CCAGGCAGGA GAGGAACCCCT  
1614 120  
1615  
1616 CTTAAGTGCA AGTGACTGCA AACATTTTTT TCGTTTGTTG AATCGCTACC AATCATGGAT  
1617 180  
1618  
1619 CC  
1620 182  
1621

*Name*

---

1622 (2) INFORMATION FOR SEQ ID NO: 45:  
1623  
1624 (i) SEQUENCE CHARACTERISTICS:  
--> 1625 (A) LENGTH: 191 base pairs  
1626 (B) TYPE: nucleic acid  
1627 (C) STRANDEDNESS: double  
1628 (D) TOPOLOGY: linear  
1629  
1630 (ii) MOLECULE TYPE: DNA (genomic)  
1631  
1632 (iii) HYPOTHETICAL: YES  
1633  
1634 (iv) ANTI-SENSE: NO  
1635  
1636 (vi) ORIGINAL SOURCE:  
1637 (A) ORGANISM: Saccharomyces cerevisiae  
1638  
1639 (ix) FEATURE:



RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

1640 (A) NAME/KEY: promoter  
1641 (B) LOCATION: 8..181  
1642 (C) IDENTIFICATION METHOD: experimental  
1643 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1644 /standard\_name= "Yeast promoter"  
1645 /label= Yp13  
1646  
1647  
1648 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:  
1649  
1650 GAATTCGTGA CTCACTAGGC AGGTCACGTT GGCTCTTCGC GGCGCAGGTT CGTATGCCGC  
1651 60  
1652  
1653 GCCGCCAGGG GCTTTATAAA GGTCGTCTCTG GGTACAGTTG GGATGGCTCC ACGTTTCGGC  
1654 120  
1655  
1656 TCTTAAGTGC AAGTGACTGC GAACATTTTCG TTTGTTAGAA TAATTCAAGA ATCGCTACCA  
1657 180  
1658  
1659 ATCATGGATC C  
1660 191  
1661

*same*

1662 (2) INFORMATION FOR SEQ ID NO: 46:  
1663  
1664 (i) SEQUENCE CHARACTERISTICS:  
--> 1665 (A) LENGTH: 167 base pairs  
1666 (B) TYPE: nucleic acid  
1667 (C) STRANDEDNESS: double  
1668 (D) TOPOLOGY: linear  
1669  
1670 (ii) MOLECULE TYPE: DNA (genomic)  
1671  
1672 (iii) HYPOTHETICAL: YES  
1673  
1674 (iv) ANTI-SENSE: NO  
1675  
1676 (vi) ORIGINAL SOURCE:  
1677 (A) ORGANISM: Saccharomyces cerevisiae  
1678  
1679 (ix) FEATURE:  
1680 (A) NAME/KEY: promoter  
1681 (B) LOCATION: 8..167  
1682 (C) IDENTIFICATION METHOD: experimental  
1683 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1684 /standard\_name= "Yeast promoter"  
1685 /label= Yp15  
1686  
1687  
1688 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:  
1689  
1690 GAATTCGTGA CTCAGGGCCG TACTAAGTAG CTTTCGTATG CTATGCGGGG TTTTATAAAT  
1691 60

*same*

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

1692  
1693 CTTTGGGCCA TGGTCTTGCT GGAAACACC TCTCTTAAGT GCAAGTGACT GCGAACATTT  
1694 120  
1695  
1696 TTTTCGTTTG TTAGAATAAT TCAAGAATCG CTACCAATCA TGGATCC  
1697 167  
1698

---

1699 (2) INFORMATION FOR SEQ ID NO: 47:  
1700  
1701 (i) SEQUENCE CHARACTERISTICS:  
--> 1702 (A) LENGTH: 191 base pairs  
1703 (B) TYPE: nucleic acid  
1704 (C) STRANDEDNESS: double  
1705 (D) TOPOLOGY: linear  
1706  
1707 (ii) MOLECULE TYPE: DNA (genomic)  
1708  
1709 (iii) HYPOTHETICAL: YES  
1710  
1711 (iv) ANTI-SENSE: NO  
1712  
1713 (vi) ORIGINAL SOURCE:  
1714 (A) ORGANISM: Saccharomyces cerevisiae  
1715  
1716 (ix) FEATURE:  
1717 (A) NAME/KEY: promoter  
1718 (B) LOCATION: 8..191  
1719 (C) IDENTIFICATION METHOD: experimental  
1720 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1721 /standard\_name= "Yeast promoter"  
1722 /label= Yp154  
1723  
1724  
1725 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:  
1726  
1727 GAATTCGTGA CTCACCGCTC GGGTGCAGGG CCAAGGCGGC GGAATGTGCG GGGCGTTCTA  
1728 60  
1729  
1730 GCGCAATCGG GGTATAAATT TATAAGGAGG CTGCGGGTGC TAGTTTGTCT AGTTTGACTC  
1731 120  
1732  
1733 TTAAGTGCAA GTGACTGCGA ACATTTTTTCG TTTGTTAGAA TAATTCAAGA ATCGCTACCA  
1734 180  
1735  
1736 ATCATGGATC C  
1737 191  
1738

---

1739 (2) INFORMATION FOR SEQ ID NO: 48:  
1740  
1741 (i) SEQUENCE CHARACTERISTICS:  
--> 1742 (A) LENGTH: 195 base pairs

*Same*

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INPUT SET: S34681.raw

1743 (B) TYPE: nucleic acid  
1744 (C) STRANDEDNESS: double  
1745 (D) TOPOLOGY: linear  
1746  
1747 (ii) MOLECULE TYPE: DNA (genomic)  
1748  
1749 (iii) HYPOTHETICAL: YES  
1750  
1751 (iv) ANTI-SENSE: NO  
1752  
1753 (vi) ORIGINAL SOURCE:  
1754 (A) ORGANISM: Saccharomyces cerevisiae  
1755  
1756 (ix) FEATURE:  
1757 (A) NAME/KEY: promoter  
1758 (B) LOCATION: 8..190  
1759 (C) IDENTIFICATION METHOD: experimental  
1760 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1761 /standard\_name= "Yeast promoter"  
1762 /label= Yp18  
1763  
1764  
1765 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:  
1766  
1767 GAATTCGTGA CTCAGGATTA GCTATGCCGG TTGGGATAAG CGAACAACTG GAGGTGAGAA  
1768 60  
1769  
1770 GCTTTTTGTC AGAATATAAA CCCGTTAGTC AGGGTTTGGT GGGATAGGGG GTACTGTACC  
1771 120  
1772  
1773 TCTTAAGTGC AAGTGACTGC GAACATTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT  
1774 180  
1775  
1776 ACCAATCATG GATCC  
1777 195  
1778

*same*

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1779 (2) INFORMATION FOR SEQ ID NO: 49:  
1780  
1781 (i) SEQUENCE CHARACTERISTICS:  
--> 1782 (A) LENGTH: 179 base pairs  
1783 (B) TYPE: nucleic acid  
1784 (C) STRANDEDNESS: double  
1785 (D) TOPOLOGY: linear  
1786  
1787 (ii) MOLECULE TYPE: DNA (genomic)  
1788  
1789 (iii) HYPOTHETICAL: YES  
1790  
1791 (iv) ANTI-SENSE: NO  
1792  
1793 (vi) ORIGINAL SOURCE:  
1794 (A) ORGANISM: Saccharomyces cerevisiae

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INPUT SET: S34681.raw

1795  
1796 (ix) FEATURE:  
1797 (A) NAME/KEY: promoter  
1798 (B) LOCATION: 8..179  
1799 (C) IDENTIFICATION METHOD: experimental  
1800 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1801 /standard\_name= "Yeast promoter"  
1802 /label= Yp183  
1803  
1804

1805 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:  
1806

1807 GAATTCGTGA CTCACTAAGG GTTCGCCATT AACAGAATCG CTGGTAGAAC ATCGGTAGTT  
1808 60  
1809  
1810 AGGCACCCGA GTATAAACAG GCGGACCCCT CACGGATATC AGCTGATAGT GCGAGCCTCA  
1811 120  
1812  
1813 ATGCGAACAT TTTTTCGTT TGTTAGAATA ATTCAAGAAT CGCTACCAAT CATGGATCC  
1814 179  
1815

*None*

1816 (2) INFORMATION FOR SEQ ID NO: 50:  
1817

--> 1818 (i) SEQUENCE CHARACTERISTICS:  
1819 (A) LENGTH: 195 base pairs  
1820 (B) TYPE: nucleic acid  
1821 (C) STRANDEDNESS: double  
1822 (D) TOPOLOGY: linear  
1823

1824 (ii) MOLECULE TYPE: DNA (genomic)  
1825

1826 (iii) HYPOTHETICAL: YES  
1827

1828 (iv) ANTI-SENSE: NO  
1829

1830 (vi) ORIGINAL SOURCE:

1831 (A) ORGANISM: Saccharomyces cerevisiae  
1832

1833 (ix) FEATURE:

1834 (A) NAME/KEY: promoter  
1835 (B) LOCATION: 8..190  
1836 (C) IDENTIFICATION METHOD: experimental  
1837 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1838 /standard\_name= "Yest promoter"  
1839 /label= Yp190  
1840  
1841

1842 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:  
1843

1844 GAATTCGTGA CTCAGTATCC ACGGGTGTTT GAGGGCTGGT CGCAGGTTAG CAGGCGAGGG  
1845 60  
1846

*None*

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

1847 CGGGTGGTTA CGGCTATAAA TGAGTGTGTTG CAGCCGGGTA CGGGCGTACG AGTAGTGATC  
1848 120  
1849  
1850 TCTTAAATGC AAGTGACTGC GAACATTTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT  
1851 180  
1852  
1853 ACCAATCATG GATCC  
1854 195  
1855

1856 (2) INFORMATION FOR SEQ ID NO: 51:  
1857  
1858 (i) SEQUENCE CHARACTERISTICS:  
--> 1859 (A) LENGTH: 193 base pairs  
1860 (B) TYPE: nucleic acid  
1861 (C) STRANDEDNESS: double  
1862 (D) TOPOLOGY: linear  
1863  
1864 (ii) MOLECULE TYPE: DNA (genomic)  
1865  
1866 (iii) HYPOTHETICAL: YES  
1867  
1868 (iv) ANTI-SENSE: NO  
1869  
1870 (vi) ORIGINAL SOURCE:  
1871 (A) ORGANISM: Saccharomyces cerevisiae  
1872  
1873 (ix) FEATURE:  
1874 (A) NAME/KEY: promoter  
1875 (B) LOCATION: 8..189  
1876 (C) IDENTIFICATION METHOD: experimental  
1877 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1878 /standard\_name= "Yest promoter"  
1879 /label= Yp191  
1880  
1881  
1882 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:  
1883  
1884 GAATTCGTGA CTCAATGCTG CGGGCGGCAG GAGTCTGGTG TAACTTCCCA TTTTGAGTGA  
1885 60  
1886  
1887 AAGACAGACC ATCTATAAAC ATTTGGTGGG CAAAGTGGCC TGGCGGATTT GTTTGGACTC  
1888 120  
1889  
1890 TTAAGTGAAA GTGACTGCGA ACATTTTTTT CGTTTGTTAG AATAATTCAA GAATCGCTAC  
1891 180  
1892  
1893 CAATCATGGA TCC  
1894 193  
1895

1896 (2) INFORMATION FOR SEQ ID NO: 52:  
1897

*same*

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INPUT SET: S34681.raw

--> 1898 (i) SEQUENCE CHARACTERISTICS:  
1899 (A) LENGTH: 166 base pairs  
1900 (B) TYPE: nucleic acid  
1901 (C) STRANDEDNESS: double  
1902 (D) TOPOLOGY: linear  
1903  
1904 (ii) MOLECULE TYPE: DNA (genomic)  
1905  
1906 (iii) HYPOTHETICAL: YES  
1907  
1908 (iv) ANTI-SENSE: NO  
1909  
1910 (vi) ORIGINAL SOURCE:  
1911 (A) ORGANISM: Saccharomyces cerevisiae  
1912  
1913 (ix) FEATURE:  
1914 (A) NAME/KEY: promoter  
1915 (B) LOCATION: 8..166  
1916 (C) IDENTIFICATION METHOD: experimental  
1917 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1918 /standard\_name= "Yeast promoter"  
1919 /label= Yp192  
1920  
1921  
1922 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:  
1923  
1924 GAATTCGTGA CTCACTTAAG GCTACTGCGG AAGTTTAGAT CTAAGGTCGG AAATAATTTA  
1925 60  
1926  
1927 GAAAATTACG ACATTATAAA TAGCGGAGAG GCCAGGTGAT GGGCACCATT GTGGGGGGGC  
1928 120  
1929  
1930 TCTTAATTGT TAGAATAATT CAAGAATCGC TACCAATCAT GGATCC  
1931 166  
1932

---

1933 (2) INFORMATION FOR SEQ ID NO: 53:  
1934  
1935 (i) SEQUENCE CHARACTERISTICS:  
--> 1936 (A) LENGTH: 195 base pairs  
1937 (B) TYPE: nucleic acid  
1938 (C) STRANDEDNESS: double  
1939 (D) TOPOLOGY: linear  
1940  
1941 (ii) MOLECULE TYPE: DNA (genomic)  
1942  
1943 (iii) HYPOTHETICAL: YES  
1944  
1945 (iv) ANTI-SENSE: NO  
1946  
1947 (vi) ORIGINAL SOURCE:  
1948 (A) ORGANISM: Saccharomyces cerevisiae  
1949

RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

1950 (ix) FEATURE:  
1951 (A) NAME/KEY: promoter  
1952 (B) LOCATION: 8..190  
1953 (C) IDENTIFICATION METHOD: experimental  
1954 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1955 /standard\_name= "Yeast promoter"  
1956 /label= Yp212  
1957  
1958  
1959 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:  
1960  
1961 GAATTCGTGA CTCAGTCGCC CGCAAGATGG GATGGTGCAT TTAAACACC CGAATTATAC  
1962 60  
1963  
1964 TCGTCAACTT ATAGTATAAA CGGAACGCGA CGATACGTTT TAGTTTTTCGG CGAAGTCGAC  
1965 120  
1966  
1967 TCTTAAGTGC AAGTGACTGC GAACATTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT  
1968 180  
1969  
1970 ACCAATCATG GATCC  
1971 195  
1972

*same*

1973 (2) INFORMATION FOR SEQ ID NO: 54:  
1974  
1975 (i) SEQUENCE CHARACTERISTICS:  
--> 1976 (A) LENGTH: 188 base pairs  
1977 (B) TYPE: nucleic acid  
1978 (C) STRANDEDNESS: double  
1979 (D) TOPOLOGY: linear  
1980  
1981 (ii) MOLECULE TYPE: DNA (genomic)  
1982  
1983 (iii) HYPOTHETICAL: YES  
1984  
1985 (iv) ANTI-SENSE: NO  
1986  
1987 (vi) ORIGINAL SOURCE:  
1988 (A) ORGANISM: Saccharomyces cerevisiae  
1989  
1990 (ix) FEATURE:  
1991 (A) NAME/KEY: promoter  
1992 (B) LOCATION: 8..183  
1993 (C) IDENTIFICATION METHOD: experimental  
1994 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
1995 /standard\_name= "Yeast promoter"  
1996 /label= Yp24  
1997  
1998  
1999 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:  
2000  
2001 GAATTCGTAC TCACGACAGC GTTATGACTT CGAGGACCAG CTACTTCCGG TCGCGTACTA

*same*

RAW SEQUENCE LISTING  
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2002 60  
2003  
2004 GTTTTACCT GTATAACTT TGCTACCGCT GGGCCTTGGT GGTGCTGTCC CGCTCTTAAG  
2005 120  
2006  
2007 TGCAAGTGAC TCGAACATT TTTTTCGTTT GTTACAATAA TTCAAGAATC GCTACCAATC  
2008 180  
2009  
2010 ATGGATCC  
2011 188  
2012

*same*

--> 2013 (2) INFORMATION FOR SEQ ID NO: 55:  
2014  
2015 (i) SEQUENCE CHARACTERISTICS:  
2016 (A) LENGTH: 195 base pairs  
2017 (B) TYPE: nucleic acid  
2018 (C) STRANDEDNESS: double  
2019 (D) TOPOLOGY: linear  
2020  
2021 (ii) MOLECULE TYPE: DNA (genomic)  
2022  
2023 (iii) HYPOTHETICAL: YES  
2024  
2025 (iv) ANTI-SENSE: NO  
2026  
2027 (vi) ORIGINAL SOURCE:  
2028 (A) ORGANISM: Saccharomyces cerevisiae  
2029  
2030 (ix) FEATURE:  
2031 (A) NAME/KEY: promoter  
2032 (B) LOCATION: 8..190  
2033 (C) IDENTIFICATION METHOD: experimental  
2034 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
2035 /standard\_name= "Yeast promoter"  
2036 /label= Yp435  
2037  
2038  
2039 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:  
2040  
2041 GAATTCGTGA CTAAATGGAT AAGGTTATCG CCATCACGGA GTCTTCTCTC ACGTCTGGAG  
2042 60  
2043  
2044 CAGAGGCTAG ACCTTATAAA TTATACATGG TGGGAGAGGC GATAGTCTTT AGAGACGTGC  
2045 120  
2046  
2047 TCTTAAGTGC AAGTGACTGC GAACATTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT  
2048 180  
2049  
2050 ACCAATCATG GATCC  
2051 195  
2052

*same*

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2053 (2) INFORMATION FOR SEQ ID NO: 56:



RAW SEQUENCE LISTING  
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INPUT SET: S34681.raw

2054  
2055 (i) SEQUENCE CHARACTERISTICS:  
--> 2056 (A) LENGTH: 189 base pairs  
2057 (B) TYPE: nucleic acid  
2058 (C) STRANDEDNESS: double  
2059 (D) TOPOLOGY: linear  
2060  
2061 (ii) MOLECULE TYPE: DNA (genomic)  
2062  
2063 (iii) HYPOTHETICAL: YES  
2064  
2065 (iv) ANTI-SENSE: NO  
2066  
2067 (vi) ORIGINAL SOURCE:  
2068 (A) ORGANISM: Saccharomyces cerevisiae  
2069  
2070 (ix) FEATURE:  
2071 (A) NAME/KEY: promoter  
2072 (B) LOCATION: 8..184  
2073 (C) IDENTIFICATION METHOD: experimental  
2074 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
2075 /standard\_name= "Yeast promoter"  
2076 /label= Yp68  
2077  
2078  
2079 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:  
2080  
2081 GAATTCGTGA CTCACAAGAA TGTGGGCGGG TCGTTAACT GAGCCTGGAC ACCTGGCTG  
2082 60  
2083  
2084 CGTCGCTTTC GTATAAAGAT CTTAGAGCTG TGGAGTCTGG GTCGAGTGGC CAGCTCTTAA  
2085 120  
2086  
2087 ATGCAAGTGA CTGCGAACAT TTTTTTCGTT TGTTAGAATA ATTCAAGAAT CGCTACCAAT  
2088 180  
2089  
2090 CATGGATCC  
2091 189  
2092

*Same*

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2093 (2) INFORMATION FOR SEQ ID NO: 57:  
2094  
2095 (i) SEQUENCE CHARACTERISTICS:  
--> 2096 (A) LENGTH: 195 base pairs  
2097 (B) TYPE: nucleic acid  
2098 (C) STRANDEDNESS: double  
2099 (D) TOPOLOGY: linear  
2100  
2101 (ii) MOLECULE TYPE: DNA (genomic)  
2102  
2103 (iii) HYPOTHETICAL: YES  
2104  
2105 (iv) ANTI-SENSE: NO

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PATENT APPLICATION US/09/242,657DATE: 02/09/2000  
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INPUT SET: S34681.raw

2106  
2107 (vi) ORIGINAL SOURCE:  
2108 (A) ORGANISM: Saccharomyces cerevisiae  
2109  
2110 (ix) FEATURE:  
2111 (A) NAME/KEY: promoter  
2112 (B) LOCATION: 8..190  
2113 (C) IDENTIFICATION METHOD: experimental  
2114 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
2115 /standard\_name= "Yeast promoter"  
2116 /label= Yp89  
2117  
2118  
2119 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:  
2120  
2121 GAATTCGTGA CTCCTCGGA AGATTGGGTT TACGATTAGG ATGGCGCGGC AGAACCGGGG  
2122 60  
2123  
2124 GGGATTCCCT TCTATATAAA GGGTTCCGAT ACTACGTGCT GCGGACGGCC GATCGAGTTA  
2125 120  
2126  
2127 TCTTAAGTGC AAGTGACTGC GAAAATTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT  
2128 180  
2129  
2130 ACCAATCATG GATCC  
2131 195  
2132

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2133 (2) INFORMATION FOR SEQ ID NO: 58:  
2134  
2135 (i) SEQUENCE CHARACTERISTICS:  
--> 2136 (A) LENGTH: 176 base pairs  
2137 (B) TYPE: nucleic acid  
2138 (C) STRANDEDNESS: double  
2139 (D) TOPOLOGY: linear  
2140  
2141 (ii) MOLECULE TYPE: DNA (genomic)  
2142  
2143 (iii) HYPOTHETICAL: YES  
2144  
2145 (iv) ANTI-SENSE: NO  
2146  
2147 (vi) ORIGINAL SOURCE:  
2148 (A) ORGANISM: Saccharomyces cerevisiae  
2149  
2150 (ix) FEATURE:  
2151 (A) NAME/KEY: promoter  
2152 (B) LOCATION: 8..171  
2153 (C) IDENTIFICATION METHOD: experimental  
2154 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL  
2155 /standard\_name= "Yeast promoter"  
2156 /label= Yp96  
2157

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/242,657**DATE: 02/09/2000  
TIME: 09:54:00**INPUT SET: S34681.raw**

2158

2159

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

2160

2161 GAATTCGTGA CTCATCTAGT GAGAGGAGCC GTGGTATCTT GTGTCACCAC CAGGGGAAAA

2162 60

2163

2164 TAATGGCAGG GGTGTATAAA TGGTCGAGTA GTCGCGACCC ACGCTGCAAG GCAAGGAACT

2165 120

2166

2167 CTTAAATTTT TTTCGTTTGT TAGAATAATT CAAGAATCGC TACCAATCAT GGATCC

2168 176

2169

*same*